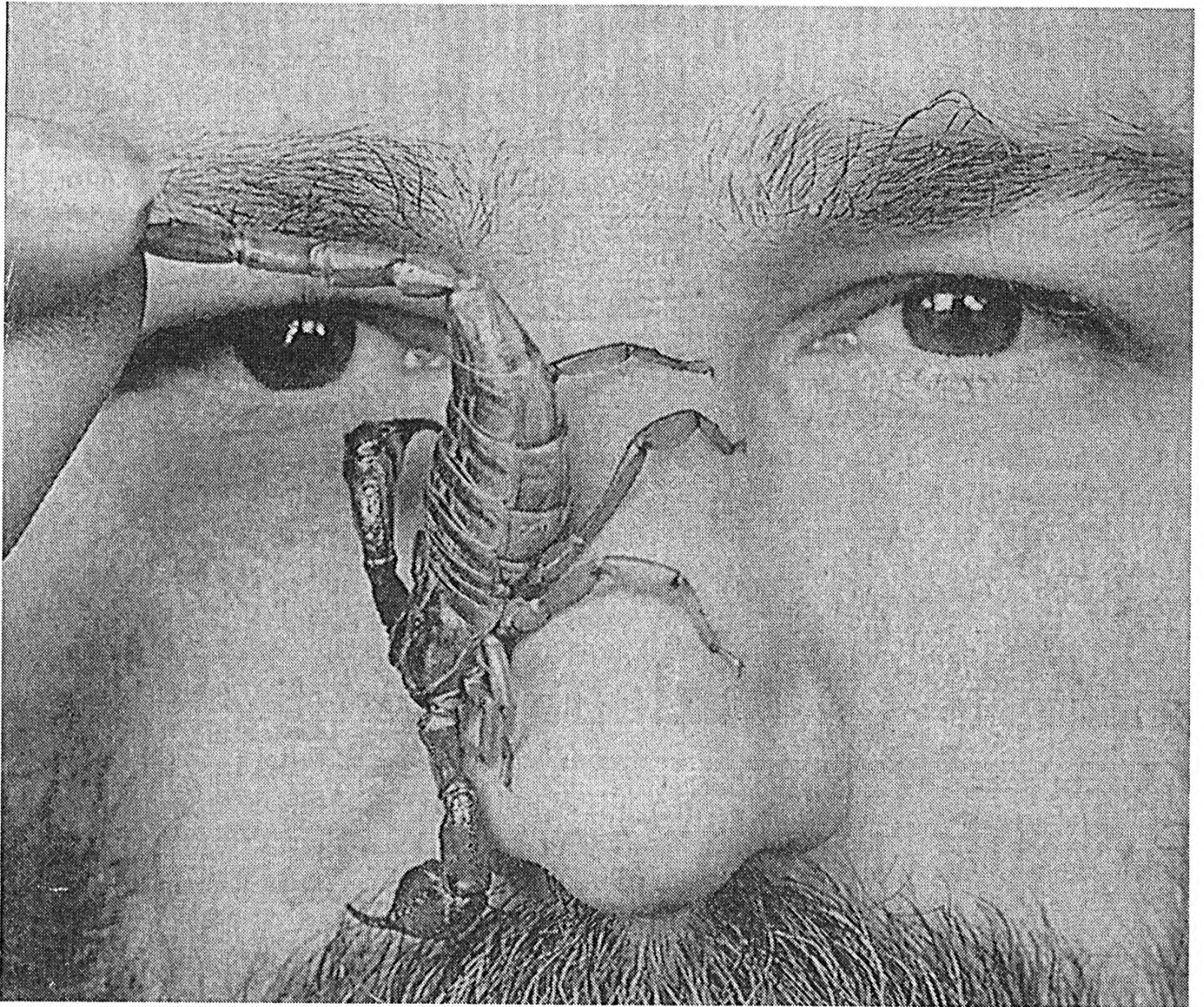


# Field Naturalists' Club of Ballarat Inc

*September 1999*



**BERT WITH FRIEND !  
ONE OF MANY TREASURES,  
FROM THE BOX-IRONBARK WOODLANDS  
See page 5**

## DIARY DATES

Fri 3rd Sept. Meeting. *Cocos/Keeling Island and the Red-footed Boobies.* Barry Kentish BU.

Sun 5th Sept. Excursion. *Fryerstown (with Castlemaine FNC).* Depart CP as usual, we will then rendezvous with Norma at Guildford's giant red gum. Spring comes to Fryerstown a month earlier than Ballarat, so expect a good day, especially for the wild flowers! Leader Norma Dikerson, Great Dividing Trail Association Member.

Wed 15th Sept to Sun 19th Sept. VFNCA campout, Mildura.

Sun 19th Sept. FNCV Excursion. *Pt Addis, Ironbarks and Wildflowers.* Meet Cnr Great Ocean Rd & Pt Addis turnoff, MEL 511 E9, 10-30, leader Kieth Marshall, Ph 9882 3044

Tues 28th Sept. Committee Meeting. Claire Dalmans, , 7-30pm.

Sun 3rd Oct. Enfield Forest - Monmouth Mine Area. Walk / drive flexiplan, walking recommended but those not wishing to walk the full distance (8km, easy walking) will be able to drive or get a lift and meet up with the walking party at various locations. We will start from Parkinsons Rd, walking down the gully where we located a powerful owl last year - see Nov 98 NL. Lunch will be at Monmouth Dam. A special focus of the day will be to find the Bronze Bird-Orchid, *Chiloglottis X pescottiana*, which we found last year - see Feb 99 NL, previously it had only been found in eastern Victoria. We also hope to find *C. trapeziformis* one of the hybrid's parents - which hasn't been found at Enfield previously - but it must be there! We will then checkout south of Monmouth Mine, traverse an area riddled with diggings, see the best preserved puddler in the district and finish at the distillery site for billy tea. The walking route will be well away from habitation and major tracks. Leaders Brian, Joan and Kevin Andrews.

Fri 8th Oct. Stella Bedggood Memorial Lecture. *Insect Protection Mechanisms.* John Landy MBE, author, photographer and naturalist. Don't Miss out!

Fri 19th to Sun 21st. Nov.

*FNCB campout to Peterborough.* Book accommodation early if you don't want to be disappointed! Motel accommodation also available but liable to be heavily booked. Leader Claire Dalman.

'97/98 Ad →

## PETERBOROUGH VIC 3270

Pop 210 (262km W Melbourne). Refer map on page 9, reference B6.

*Tiny fishing resort at the mouth of the Curdies River. Ocean road by-passes the town centre. Viewpoint overlooks the river mouth: boating, bush walks, fishing, golf, sailing, scenic drives, surfing, swimming (beach, river), tennis.*

★★★ Great Ocean Road Tourist Park Great Ocean Rd, 300m N of PO, adjacent to bridge. Res mgrs Ed & Shirl Hislop. ☎ 03-55985477. 86 sites, all pwr, all indiv taps. Town water, sep tlts (7G-9L), h/shwr (9G-9L), ldry, (w/mach-fee, dryer-fee). No pets allowed. Sites D ♢ \$10 to \$13, \$1. Sites-pwr D ♢ \$12 to \$16, \$1. EFT.

★★★ (Park Cabin Section) 9 ♢, acc up to 8, (blkets, linen, pillows reqd). [shwr, tlt, heat, cool, TV, clock radio, refrig, cook fac, micro, toaster]. D ♢ \$40 to \$70, \$5.



### AUGUST MEETING POINTS.

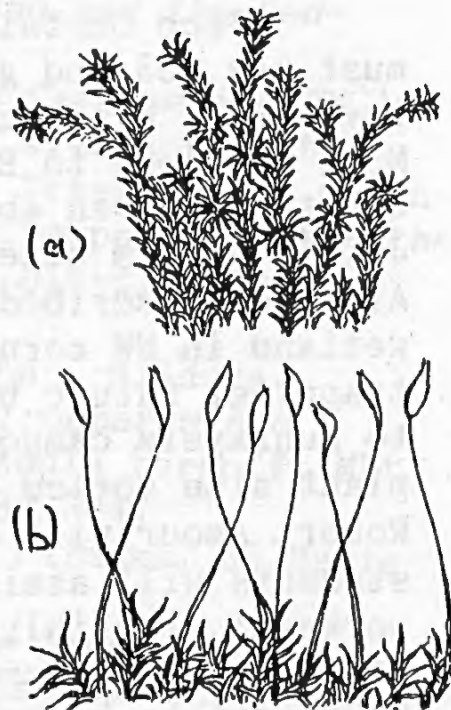
1\*Bob Curtain in hospital. 2\*Heritage Commission, we must pay \$35 and give notice before 13th Sept if we want to be involved. Will run 25th March to first week in April, 2000. Must be close to Ballarat - we agreed to participate. 3\*Details given about meeting concerning RFA, 10th July, BA, JA, CD and PM attended. 4\*Concerns raised by Enfield Forest Alliance described by BA. 5\*JEG gave details of proposed wetland in NW corner of gardens - flood protection, rubbish trapping, future bird habitat etc. 6\* Claire and Peter going to Sunraysia campout. 7\*The problem of the Lal Lal anchor plant site sorted out by Nick Jashenko (DNRE), arborculturist Robert Amour will cut willows and poison stumps, Bal. Uni. students will assist with work, Bar BQ snags promised for the workers! Possibly also minor fencing, spot spraying etc. 8\*Discussion regarding Lexton and Landsborough(?) excursion. 9\*Request to boycott wood-chip products. 10\*The book "FOREST MANAGEMENT PLAN - MIDLANDS", available from DNRE for \$10. 11\*Meeting, Western Forests, 10th Sept, Creswick, Ron Hatelly, Rob Price DNRE, Evelyn Hogan TFN, Ph Creswick LCC 5345 2200. 12\*Box Ironbark notes \$20. 13\*Letter of thanks from Helen Burgess.

### FIELD REPORTS

Several European wasps about - seems early! Due to Absence of frosts this year? 3rd - 5th Aug, Wendouree, Claire Dalman. Plenty of frosts at Meredith! 2 Peregrine falcons at Meredith, all birds hid, including the fowls! Lyndsay Fink. 2 pairs of pie oyster-catchers on beach, Cape Bridgewater, 30th June. 1 male musk duck displaying, 3 interested females, mated, then too exhausted to walk, rowing course, Carol Hall. Mother and baby bat found behind an earthenware mask in our porch, 2 months later it was found that one had eaten the other - part skeleton left. As we were moving, after consulting with DNRE, Del put bat into a tree. May, Invermay. 1 pair of crescent honey-eaters, also at Invermay. White faced herons feeding on lawns at Creswick, Ken McDonnell. White, long necked bird in filtration pond, Lake Wendouree, 6th Aug, Eileen Anderson. Pair of wood ducks nesting in tree hollow beside Geelong Rd, Mt Helen, 5th Aug. 1 Pair of bronzewings, male hopping - female kept feeding. 1 frogmouth and herons. John Mildren. Raptor, thought to be sparrowhawk, Tony Johns. White tailed spider brought in by Lyndsay Fink. Specimens of Schizophyllum commune, orange eyelash fungi on dung and the spined fungi Hydnum repandum which had light apricot coloured spines underneath the cap and at first looked just like a quartz rock from above, brought in by Brian Andrews.

## MOSES, LIVERWORTS AND LICHENS.

Gary Cheers from Maryborough FNC was our guest speaker for August. He started by pointing out that mosses are bryophytes, they do not have the vascular structures of the tracheophytes - which leads to a simple method of identification - their 'leaves' do not have veins. Moss plants have a leafy gametophyte (a) and female plants have a clublike sporophyte (b). Reproduction can be sexual via release of spores from the sporophyte or asexual by gemmae, the tips of gametophytes, breaking off and forming new plants. John Gregurke gave an excellent practical demonstration of the latter at Creswick!



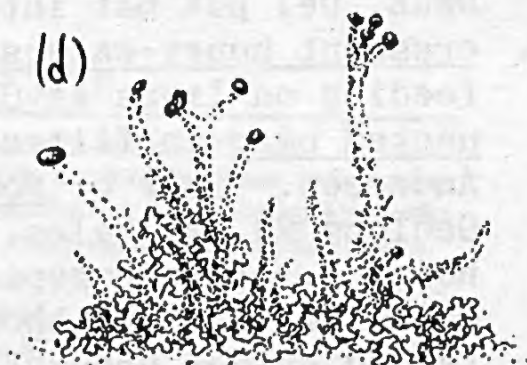
We were then shown slides of various species including one from northern Victoria which was only 3mm high and for contrast *Dawsonia superba*, the tallest moss in the world which can grow to a height of 60cm. We saw lawn moss, which can take over in the bush, firemoss with its orange sporophytes, *Tayloria sp* which is always growing in our green house pots, the cosmopolitan *Hypnum cupressiforme*, cushion forming moss, and a *Tayloria sp* which had its spores dispersed by flies which were attracted by its foul smell!



Next we moved on to liverworts these can be leafy -with no vein, or thallose which can be veined. They can reproduce via spores released from a sporophyte or asexually via gemmae, small oval shaped bodies formed on the upper surface of the thallus in gemmae cups, resembling minute eggs in a bird's nest, (c).

We were then shown slides of various species, including one species that floated on water!

Completing the trio, we had lichens. These are really two plants in one, a green alga or cyanobacterium embedded in a fungus. It is a symbiotic relationship, the alga produce food by photosynthesis and the fungus absorbs minerals and water from the surface on which it is growing.



We were shown several species including British soldiers - *Cladonia cristatella* (d), with their red fruiting bodies, *Usnius sp* old man's beard, yellow *Xanthoria sp* found on apple



trees and the orange high tide lichen *Caloplaca soorediata*.

Brenda followed with a talk about their wildlife shelter....Thanks!

Brian Andrews

### CRESWICK MINERS WALK...Sunday 8th August 99

Following heavy, overnight rain eight people met for our excursion to the Creswick Miners Walk amid clearing showers. After organising cars, we began walking from Blue Waters filled with brilliant blue, clear water. Heading south the track goes through heavily mined ground that has been invaded by Gorse and Cape Broom. We quickly became aware of the variety of moss and lichen growing on soil, rocks and tree trunks.

As we headed further into the forest we often crossed or followed water races. The purple flowers of *Hardenbergia violaceae* and *Hovea linearis* show that spring is approaching. Buds on Pink Bells *Tetratheca ciliata* and Scented Sundew *Drosera whittakeri* were well advanced. Silver Wattle *Acacia dealbata*, Ploughshare Wattle *A. gunni* and Spreading Wattle *A. diffusa* were also seen in flower. Only one species of orchid, Tall Greenhood *Pterostylis longifolia*, was found in flower.

We arrived at Slaty Creek picnic ground for lunch. Nearby are the hilled up beds of a Chinese market garden. Hard work would be required to get soil deep enough and to carry buckets of water to grow vegetables.

Along Shuttleworth Road we stopped at a settlement marked by a Cypress tree and Hawthorns. We found old bottles and boots as well as more recent rubbish that had been dumped in the bush. Many species of fungi were found throughout the day.

The Creswick Miners Walk goes from St Georges Lake to Ballarat through Creswick Forest, past White Swan Reservoir and Nerrina. Miners from Creswick joined the Eureka Stockade in 1854 by following a similar route. It is part of the Great Dividing Trail that extends to Castlemaine and Bacchus Marsh.

John Gregurke

### GOOD TIMING GREG !

Greg sent me a letter for you, which I have summarized below:-

\*Arrived in Cairns just 4 hours before the birth of our second grand daughter, Ella, to Joanne and Peter. Good timing!  
\*Journey north and east full of wonderful experiences. \*Busy doing lists, journal and Bird Atlas Records. \*Greetings to all at FNCB. \*The shower of rain we had yesterday morning was the first since we left Ballarat in June! The lushness of the Atherton Tablelands and Cairns are rather hard to get used to after the time spent out west. \*We have been doing a lot

of bush camping and really enjoying "the vision splendid of the sunlit plains extended; and at night the wondrous glory of the everlasting stars". \*been to many interesting spots off the Stuart Highway, Bathurst Island, Oenpelli in Arnhem land, the Cobourg Peninsular, the Barkly Tableland and the Gulf Savannah country - all without any major problems ... but the whole outfit is looking a bit dusty! \*An aspect of the 'top end' we are glad to be away from is the constant and too frequent burning of the bush. One cannot help questioning this current practice which appears to be devastating the natural ecology of vast areas of the country. \*Best wishes to all ...

Genny and Greg

## GIANT FIND OF AUSSIE INSECTS

From the bush: Bert Candusio and scorpion, now living at the Insectarium. Picture: ROB LEESON

IN one single hectare of bushland near Bendigo, entomologist Bert Candusio and his helpers have found 80 ant species — many new to science.

Over a seven-year survey, the box-ironbark eucalypt woodlands between south-western Victoria and Wodonga have yielded no fewer than 200 ant species, representing 44 different genera — or 80 per cent of the known ant genera in all of Australia.

And the astonishing biodiversity of the box-ironbark woodlands is not limited to ants, according to Mr Candusio, owner of the privately operated Insectarium of Victoria at Woodend.

To date, Mr Candusio and his voluntary helpers — mainly secondary and university students — have collected 60,000 insect specimens from pit traps.

He estimates they represent at least 1500 and possibly 2000 species.

It is not possible to make a more accurate tally, because more than half are undescribed species — without precise scientific descriptions for reference. It is anyone's guess how many species there might be.

Ants dominate the fauna of the box-ironbark woodlands, which have been devastated by land

### By GRAEME O'NEILL

clearance for agriculture, mining and suburban sprawl over the past 50 years.

Huge bulldog ants in the genus *Myrmecia*, capable of inflicting painful stings, are among the most visible members of the ant fauna.

The Insectarium collected a queen of the rare bulldog ant *Myrmecia mandibularis* and established a captive colony for the edification of the 15,000-odd primary, secondary and university students who visit annually to see the collection.

Less than 20 per cent of the box-ironbark woodlands' pre-European area remains, much of it in patches too tiny to sustain the woodlands' biological riches.

Most of Victoria's endangered birds, including the regent honeyeater and grey-crowned babbler, are denizens of the box-ironbark woodlands.

But Mr Candusio says bushwalkers could stroll through the terrain and miss most of the action. Only through meticulous observation and using sophisticated trapping techniques, in all seasons, has the Insectarium been able to assemble anything approaching a comprehensive collection.

People begin to appreciate the importance of the collection, with its 1500 to 3000 species,

when Mr Candusio tells them that before the survey began seven years ago, the CSIRO's Australian National Insect Collection in Canberra held only 40 species from Victoria's box-ironbark woodlands.

With 80 per cent of the woodlands gone, science will never know how many of its invertebrates vanished without being collected, catalogued and described — but Mr Candusio says the number of extinct species is probably substantial.

Why should the woodlands have such an enormously diverse fauna? Mr Candusio says one theory is that they offer a diversity of ecological niches that not only sustain permanent residents, but offer a refuge during drought for species from adjacent ecosystems.

Despite their sorry history, the box-ironbark woodlands are not yet out of the woods from a conservation perspective.

Gold-mining companies controlled by overseas interests want to clear areas of woodland near Axedale and Goornong for open-cut mines, and Mr Candusio is unimpressed by recent attempts to revegetate mine sites.

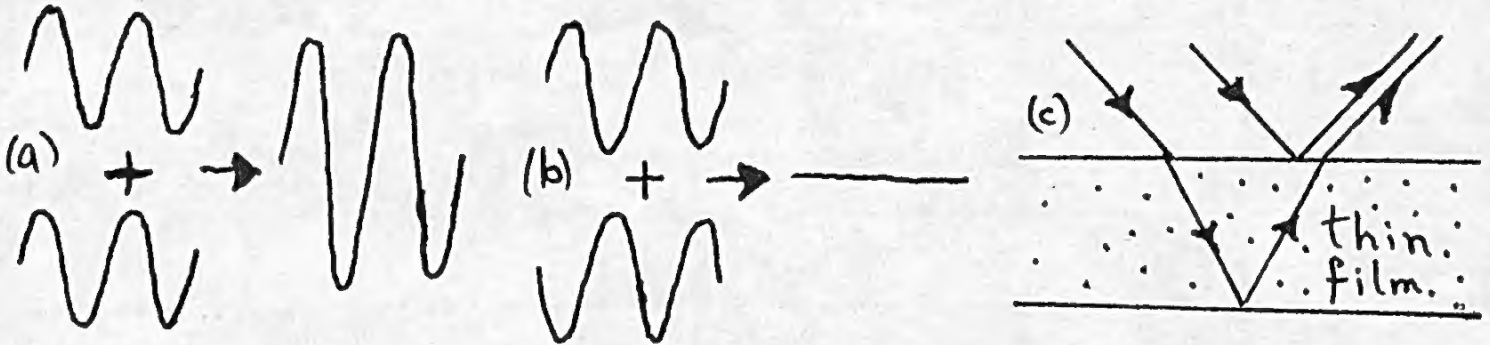
People cutting and selling firewood to supplement their income are also having an impact.

From Herald Sun - SUNDAY. Submitted by Lyndsay Fink



## AUGUST POSER - PRETTY PEACOCKS AND MOULTING WRENS.

Light can be considered to be a wave motion. Waves of the same wavelength and which are in phase can combine to form one wave with double the amplitude, (a) below. On the other hand if two waves combine which have different wavelengths or are out of phase the resultant wave is much weaker or non-existent, as in (b). Waves can combine after reflection from upper and lower surfaces of thin films, such as oil on water, (c). The resulting enhanced wavelength or colour will depend upon the thickness of the film and the angle of viewing.



The book 'Colour in Nature - A Visual and Scientific Exploration' by Penelope Farrant, gives the statement :- "The iridescence producing structure of peacock feathers comprises evenly spaced melanin rods and air spaces, embedded in keratin."

The book gives the diagram opposite, but seems to omit which material is which and what surfaces do the reflecting!



The tail decorative spots seem to more or less have a full spectrum of colour (except red!?) in more or less spectral order indicating gradual changes in the distance between reflecting surfaces. The centre of the spot seems black to our eyes but this would indicate zero distance between reflecting surfaces, I would suggest that the centre spot is really ultra violet, especially as we now know that birds have ultra violet vision and there have been reports of sex related plumage (ie that of European blue tits) being ultra violet.

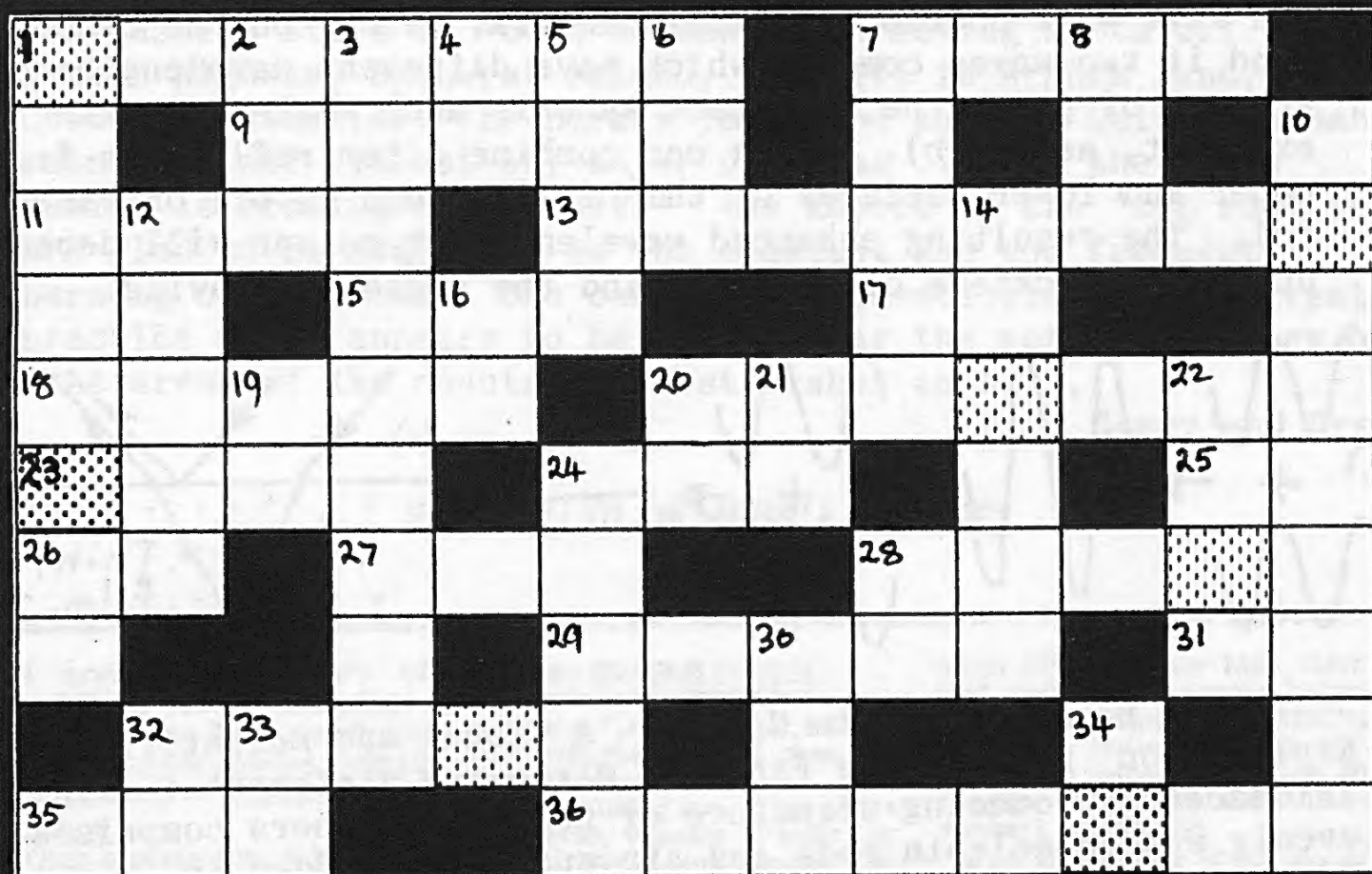
As for the wrens, I've been watching tails change from brown to blue, but I have not seen any feathers missing! It might just be easier for birds to change the structure of feathers rather than replace the feathers. Maybe some member can observe how the display feathers of peacocks come about.

Brian Andrews

AND MORE ON HELEN'S EGGS! Eggs are also shaped the way that they are, so that the tranquillity of the bush is not disturbed by the loud popping noises of eggs being ejected from cloacas!

Ken McDonnell

# SEPTEMBER POSER...CROZZY TIME AGAIN !



**ACROSS** 1.Prickly shrub 7.Male sheep 9.British sailor 11.Crake like bird 13.White part of granite 15.Ignited 17.Start of otter 18.Top room 20.Black and orange butterfly 23.Unwelcome fish 24.Oxlike antelope 25.Homophone of ore 26.lord - od 27.G. out 28.Small lizard 29.Oak seed 31.Electroplate 32.Chlorophyll colour 35.Head movement 36.Eight legged arthropod **DOWN** 1.Shellfish that sticks to things 2.M. ---, boxer 3.Thousand (?) legged animal 5.Opposite of right 6.Optic organ 7.Radioactive gas 8.Rough one sometimes drawn in mud 10.Animal with an exoskeleton 12.Rose petal oil 14.Male part of flower 16.Integrated circuit 19.Trace 20.Manganese 21.15th and 21st letters 22.Coca cola 24.Large lizard 28.Grain(s) 30.Eggs 32.Depart 33.Road 34.Not out. **AND** what's in the Grey squares?

-----\*\*\*----- **FNCB** -----\*\*\*-----

**Meetings** are held at the Ballarat Horticulture centre, corner of Gregory and Gillies Streets, ie. the NW corner of the Botanic Gardens, commencing at 7-30pm

**Excursions** depart from Creswick Plaza at 9-30 am, unless specified otherwise.

**Committee:** Claire Dalman (President).. , Greg Binns (Vice President).. , Pat Murphy (Secretary).. , John Gregurke (Treasurer).. , Brian Andrews (Editor).. , Helen Burgess, Naureen Christie, Lyndsay Fink, Carol Hall, John Mildren.

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